

CLAIMS

What is claimed is:

1. A semiconductor device comprising:

at least one memory cell configured to generate a first voltage on a first bit line

and including a switching device having a first resistance;

at least one reference cell configured to generate a second voltage on a second bit

line and including:

a first resistive element coupled between a voltage source and the second

bit line and having a second resistance; and

a second resistive element coupled between a sink and the second-bit line

and having a third resistance; and

a sense amplifier for generating an output in response to the first and the second

voltages.